

South Carolina Department of Health and Environmental Control
Division of Ocean and Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

and

Charleston District, Army Corps of Engineers
69-A Hagood Avenue
Charleston, South Carolina 29403

August 19, 2015
Joint Permit Application Public Notice

Agru America Charleston, LLC, 2014-00387-PIC(15)

The Department has received an application for a permit for the alteration of a critical area. The application was submitted pursuant to the Coastal Zone Management Act (Act 123) of 1977 South Carolina General Assembly. The application in brief, is described as follows:

LOCATION: On and adjacent to Cooper River at 1401 Greenleaf Road, North Charleston, Charleston County, South Carolina.
TMS: 464-00-00-016.

WORK: The work as proposed consists of constructing a high density polyethylene (HDPE) pipe manufacturing and export facility with associated infrastructure. The new facility will include a production building, welding building, storage silos, rail spurs, stormwater pond, bridge access road, pipe causeway pier, a work boat supply pier, a pipe launch pier, a boat dock, boatlifts, (54) guide piles, (21) spar buoys and anchors and (5) pile dolphins. The proposed facility will also include a floating pipe storage and mooring within the Cooper River. The critical area impacts include (7) support bents, each supported by (2) 14" piles, a 27' x 360' pierhead, a 12' x 31' boat dock with (2) 4' x 70' finger docks, a 36' x 120' causeway pier, a 62' x 123' retrieval pier, a 12' x 120' boat supply pier, a 3' x 29' access dock with (2) 14' x 12' boatlifts and (13) guide piles located on 50' centers with (2) 7-pipe pile dolphins. The floating pipe storage and mooring area will consist of (41) guide piles located on 50' centers, (21) anchored spar buoys & (3) 7-pipe pile dolphins. The project also includes 1.35 acres of freshwater wetland impacts that will be reviewed under the OCRM certification process. Further project specifics are outlined in the attached notice. The Operations & Maintenance Manual is available during normal office hours. The work as described is for development of a HDPE manufacturing and export facility in the Port of Charleston.

This public notice is being distributed to all known interested persons and agencies to assist in developing facts on which a decision by the Department can be based. Comments concerning the proposed work must be submitted in writing, setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

Comments regarding this application must be received by the Department on or before **September 18, 2015**. For more information, please contact **Steve Brooks** at 843-953-0235 or via email at brookss@dhec.sc.gov.

NOTE: Plans depicting the proposed work are available and will be provided upon receipt of a written request or may be viewed on the Department website at <http://www.scdhec.gov/Apps/Environment/PublicNotices>.

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS

69A Hagood Avenue

Charleston, South Carolina 29403-5107

and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Office of Ocean and Coastal Resource Management

1362 McMillan Avenue, Suite 400

Charleston, South Carolina 29405

REGULATORY DIVISION

Refer to: P/N # [REDACTED] 2014-00387-PIC (15)

August 14, 2015

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), and the South Carolina Coastal Zone Management Act (48-39-10 et seq.), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

AGRU AMERICA, LLC.

C/O MR. MATTHEW DANYSH

500 GARRISON ROAD

GEORGETOWN, SOUTH CAROLINA 29440

for a permit to construct a high-density polyethylene (HDPE) pipe manufacturing and export facility and associated infrastructure in the

COOPER RIVER

at a location described as 1401 Greenleaf Street, Charleston, in Charleston County, South Carolina (Latitude: 32.8223 N, Longitude: -79.9368 W), Charleston Quad Sheet.

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by the **Corps** until

15 Days from the Date of this Notice,

from those interested in the activity and whose interests may be affected by the proposed work.

PROJECT DESCRIPTION:

The proposed work consists of constructing a HDPE pipe manufacturing and export facility which would include a production building, welding building, four storage silos, two (2) rail spurs, a stormwater pond, a bridged access road, a pipe causeway pier, a work boat supply pier, a pipe launch pier, a boat dock, two (2) boat lifts, fifty-four (54) guide piles, twenty-one (21) spar buoys and anchors, and five (5) pile dolphins. The proposed facility would also include floating pipe storage and mooring within the Cooper River. In detail, the applicant proposes to fill 1.35 acres of freshwater wetlands for the construction of two (2) rail spurs, a stormwater pond, and a laydown/site operation area. In-water structures would include the construction of seven (7) support bents, each supported by two (2) 14-in piles; a 27-ft by 360-ft launch pier; a 12-ft by 31-ft boat dock with two (2) 4-ft by 70-ft finger docks; a 36-ft by 120-ft pipe causeway pier; a 63-ft by 123-ft launch/retrieval pier; a 12-ft by 120-ft boat supply pier; a 3-ft by 29-ft access dock with two (2) 14-ft by 12-ft boat lifts; and thirteen (13) guide piles located on 50-ft centers with two (2) 7-pipe pile dolphins. Additionally, the proposed project would include the construction of a floating pipe storage and mooring area which would consist of forty-one (41) guide piles located on 50-ft centers; twenty-one (21) anchored spar buoys; and three (3) 7-pipe pile dolphins.

At the proposed facility, HDPE pipe segments up to 2,000-feet (ft) long and up to 9-ft in diameter would be produced by heating HDPE pellets. It is proposed that no more than 30 rail cars per month and 20 trucks per would transport raw materials to the site. Small segments of HDPE pipe would also be transported from the site via rail and truck. Due to the length, weight, and logistics of site storage and transporting the longer segments, the pipe must be supported off the ground and stored in the river until it would be exported via ocean-going tug. It would take approximately 5 days to produce each 2,000-ft segment of HDPE pipe, depending on the thickness and diameter. Typically, 12 segments of long-length pipe would be exported together.

The applicant proposes to fill 1.35 acres of jurisdictional freshwater wetlands for the construction of the proposed production facility. As shown on figured 3 and 4, the project as proposed would allow for the fill of 1.08 acres of Wetland 1 and 0.27 acre of Wetland 2 for the construction of the proposed rail spur, stormwater pond, and laydown area. The applicant is also proposing construction of a 24-ft by 123-ft spanned and pile supported access road over Critical Area wetlands. This activity is not regulated by the Corps. A retaining wall and rip rap apron would also be constructed landward of the critical line in uplands; no fill material would be placed in waters of the U.S. or below the critical line.

The pipe would be extruded from the rear of the production facility toward the Cooper River. Twenty-five (25) support bents would be located between the production facility and the welding building. Each bent would be supported by two 14-inch piles. As shown on Figure 11, seven (7) support bents totaling fourteen (14) piles are located with the Critical Area. A retaining wall and rip rap apron would also be constructed in uplands, landward of the critical line between the support bents and the welding building.

The pipe would continue down the proposed 27-ft by 360-ft launch pier. A portion of the existing coal tipple railroad trestle would need to be removed to construct the launch pier. At the end of the launch pier, a pipe ramp/gangway would lead to a 12-ft by 31-ft floating dock which would include two (2) 4-ft by 70-ft finger docks. Once extruded into the river, thirteen (13) guide piles would be placed in the open water, located on 50-ft centers, and used to guide the pipe into the river. The guide piles would be located adjacent to the existing trestle. Additional guide piles may be proposed, if needed. Two (2) 7-pipe pile dolphins are proposed at the end of the guide

August 14, 2015

piles.

Various segments of pipe may need to have flanges welded to the ends and would be guided toward the welding building via the proposed pipe retrieval, launch pier, and causeway pier. The proposed pipe retrieval and launch pier would be approximately 63-ft by 123-ft and would be connected to a 36-ft by 120-ft causeway pier. Additionally, a 12-ft by 120-ft service boat supply pier and 3-ft by 29-ft access dock would be connected to the pipe retrieval and launch pier. Service boats would be docked on two (2) 14-ft by 12-ft boat lifts at the end of the pipe launch pier.

After the HDPE pipes have been extruded, a floating pipe storage and mooring area is proposed in the Cooper River between the existing contraction dike to the north and the existing coal tippie railroad trestle to the south. The HDPE pipe would float as the water depth in the proposed storage area ranges from 8-ft mean low water (MLW) to 22-ft MLW; the minimum depth needed is 2 ft MLW. The proposed mooring system would consist of forty-one (41) guide piles, located at 50-ft centers. The piles would be located approximately 420-ft from the edge of the Federal Navigation Channel. The waterside face of the pile would be surfaced with an ultra-high molecular weight plastic (UHMW) to protect the pipe. If damage to the pipe were to occur, additional floats or bumpers would be added to the pile. Additionally, the proposed mooring system would consist of twenty-one (21) buoys that would be anchored by an 8-ft by 8-ft by 4-ft concrete block or a drilled helical anchor. These anchors would be located approximately 290-ft from the edge of the Federal Navigation Channel. A uniline parallel core cable and spar buoy would be attached to each anchor and connected to its parallel guide pile. Additionally, three (3) 7-pipe pile dolphins are proposed at the northern edge of the floating pipe storage area to prevent movement of the pipe toward the contraction dike. All piles and moorings would be marked as required by the US Coast Guard. A total of two hundred and eighty-seven (287) piles would be installed for the proposed project, of which, two hundred and twenty-seven (227) would be placed in Critical Area. The piles are proposed to be driven with a combination of vibratory hammer and impact hammer.

AVOIDANCE AND MINIMIZATION:

As stated by the applicant, avoidance and minimization efforts include avoiding fill in critical area wetlands for the construction of a pile-supported bridge for the proposed access road. Additionally, no in-water dredging work is proposed for the proposed facility and its operations. The applicant also proposes to construct a retaining wall in uplands and landward of the critical line for stability of the site. The proposed location of the rail spur also minimized impacts to critical area wetlands and allows for use of the main railroad line north of the site.

MITIGATION:

The applicant has proposed to mitigate for impacts to wetlands and/or waters of the United States by purchasing 16.6 mitigation credits (8.3 preservation credits and 8.3 restoration and/or enhancement credits) at Pigeon Pond Mitigation Bank or another Corps approved bank. The project purpose is to develop a HDPE pipe manufacturing and export facility in the Port of Charleston.

August 14, 2015

NOTE: This public notice and associated plans are available on the Corps' website at: <http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices> . For those unable to access the website, a copy of this notice and the associated plans will be provided, upon receipt of a written request. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided. Your request should be addressed to the

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A Hagood Avenue
Charleston, South Carolina 29403-5107**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact approximately 16 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the District Engineer has consulted the most recently available information and has made no determination of effect on any Federally endangered, threatened, or proposed species. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any Federally listed or proposed to be listed endangered or threatened species and/or designated or proposed critical habitat may be present in the area which would be affected by the activity.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with Section 106 the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(l)(1)), and has initially determined that no historic properties are present; therefore, there will

August 14, 2015

be no effect on historic properties. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and any other interested parties to provide any information they may have with regard to historic properties. This public notice serves as a request for concurrence within 30 days from the SHPO (and/or Tribal Historic Preservation Officer).

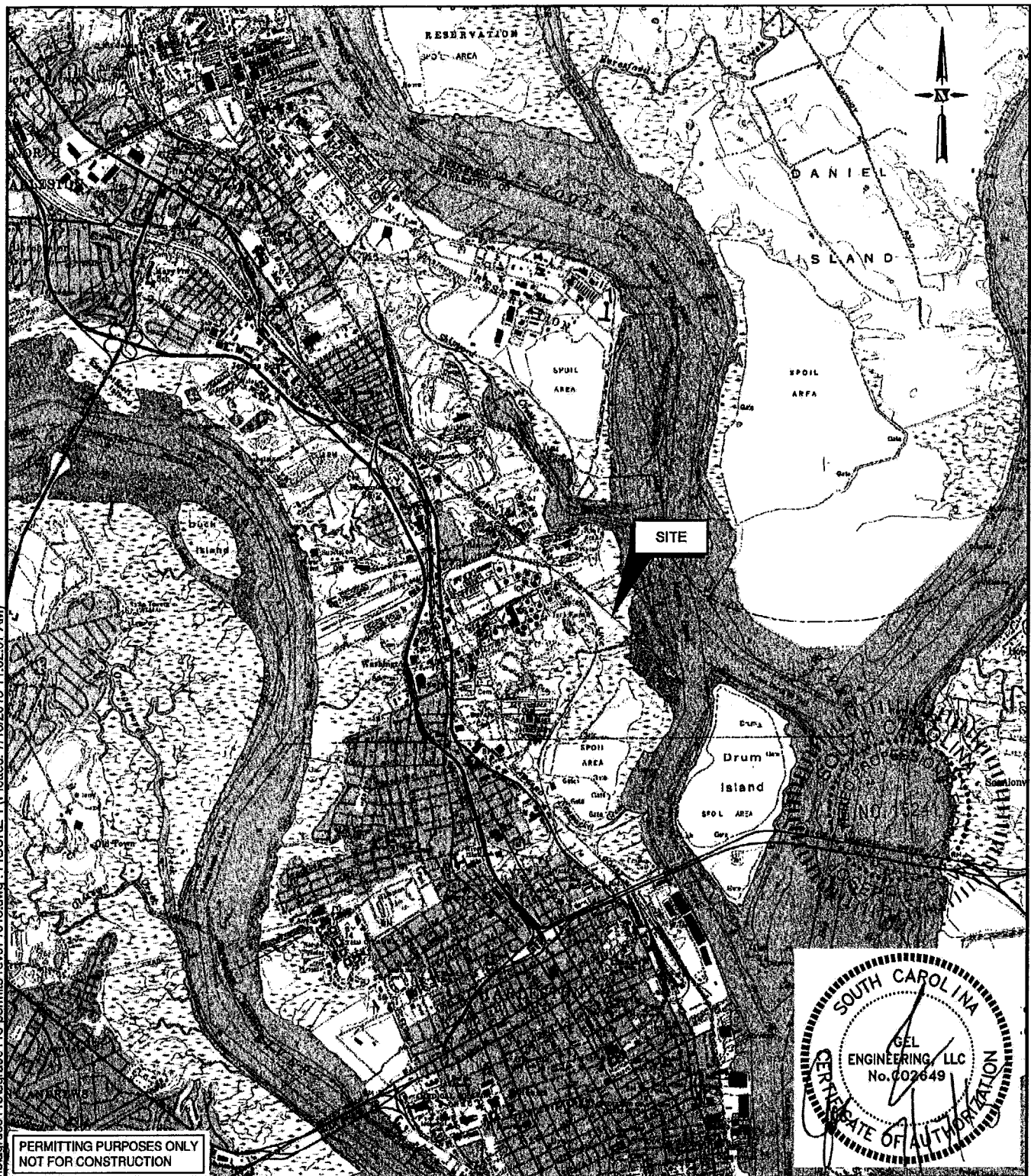
The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

If there are any questions concerning this public notice, please contact **Ms. Courtney Stevens** at 843-329-8044 or toll free at 1-866-329-8187.



PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION

PURPOSE: MANUFACTURING AND
EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 1
QUAD MAP

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

IN: COOPER RIVER

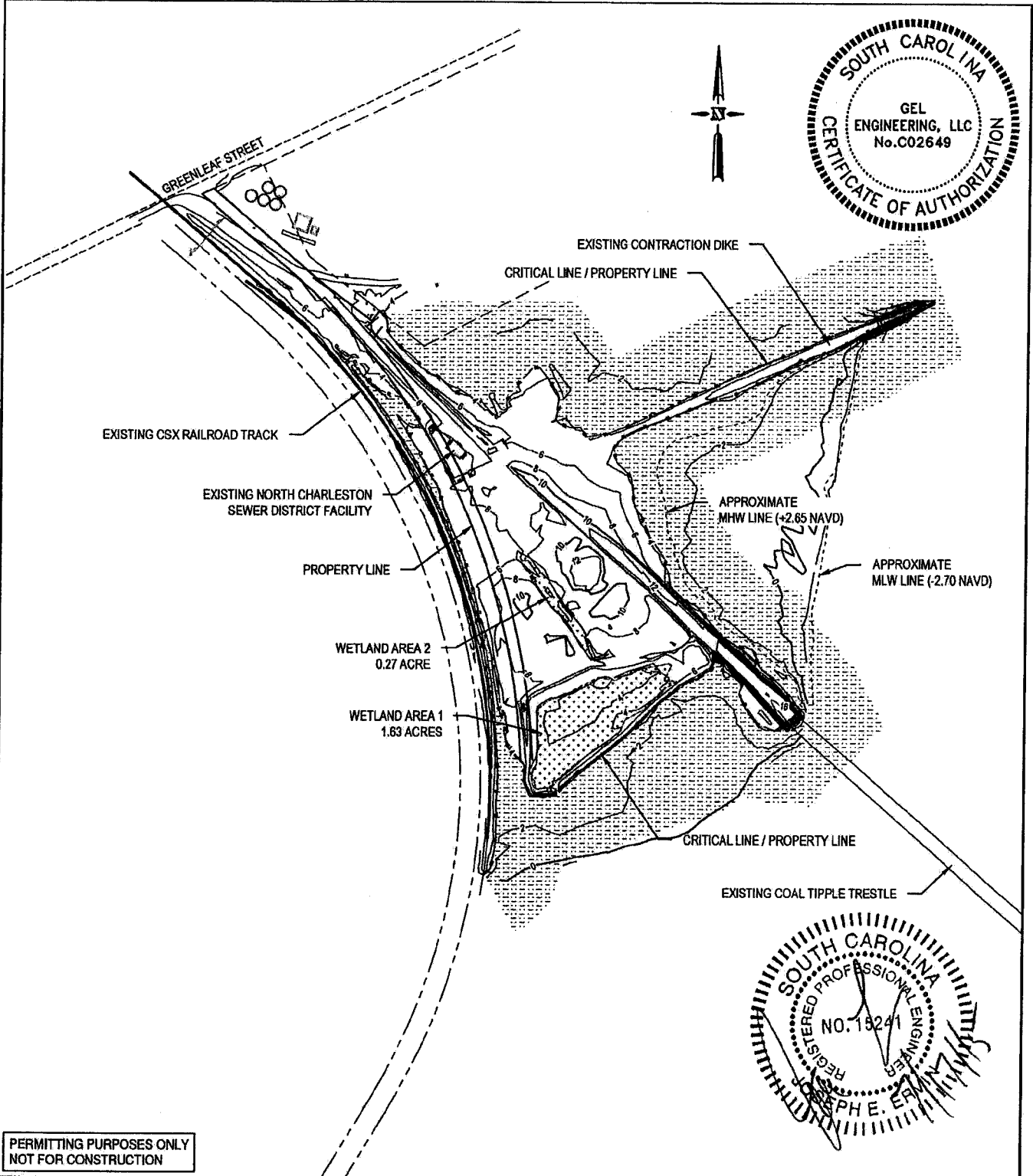
COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 1 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015

g:\a-d\lagru - agru americas, inc\lagru00115\lagru00115-permits-rev071615.dwg - FIGURE 1 (Plotted: 7/16/2015 11:02:07 AM)

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PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION

PURPOSE: MANUFACTURING AND
EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD88
NAD 83

FIGURE 2
EXISTING SITE PLAN

0 400' 800'

SCALE: 1" = 400'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

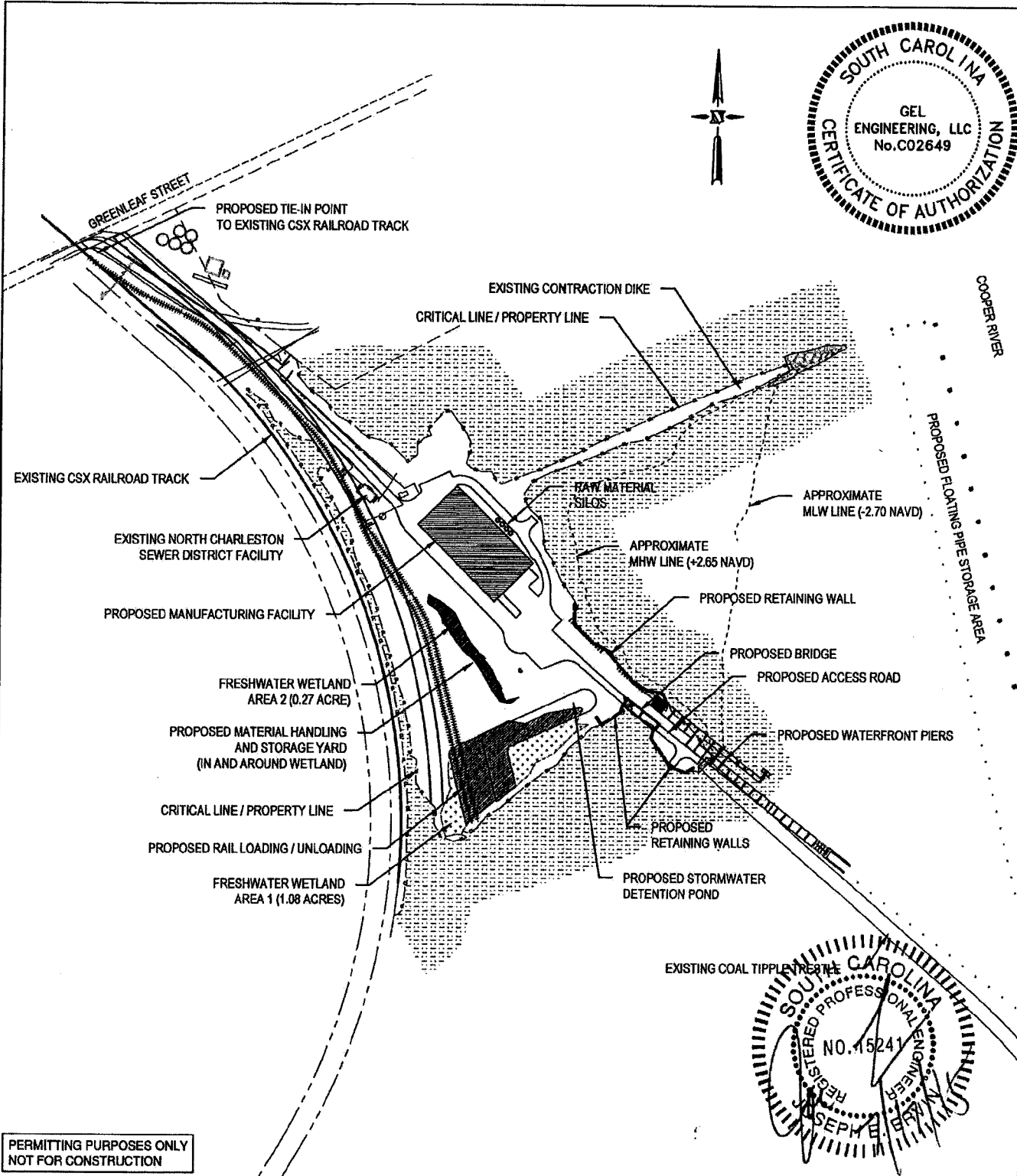
IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 2 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015

c:\a-d\lagru - agru.america.s\incl\agru00115\agru00115-permits-rev071615.dwg : REV FIGURE 3 (Plotted: 7/16/2015 10:46:03 AM)



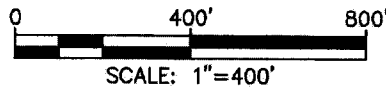
PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION

PURPOSE: MANUFACTURING AND
EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 3
PROPOSED SITE PLAN



AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

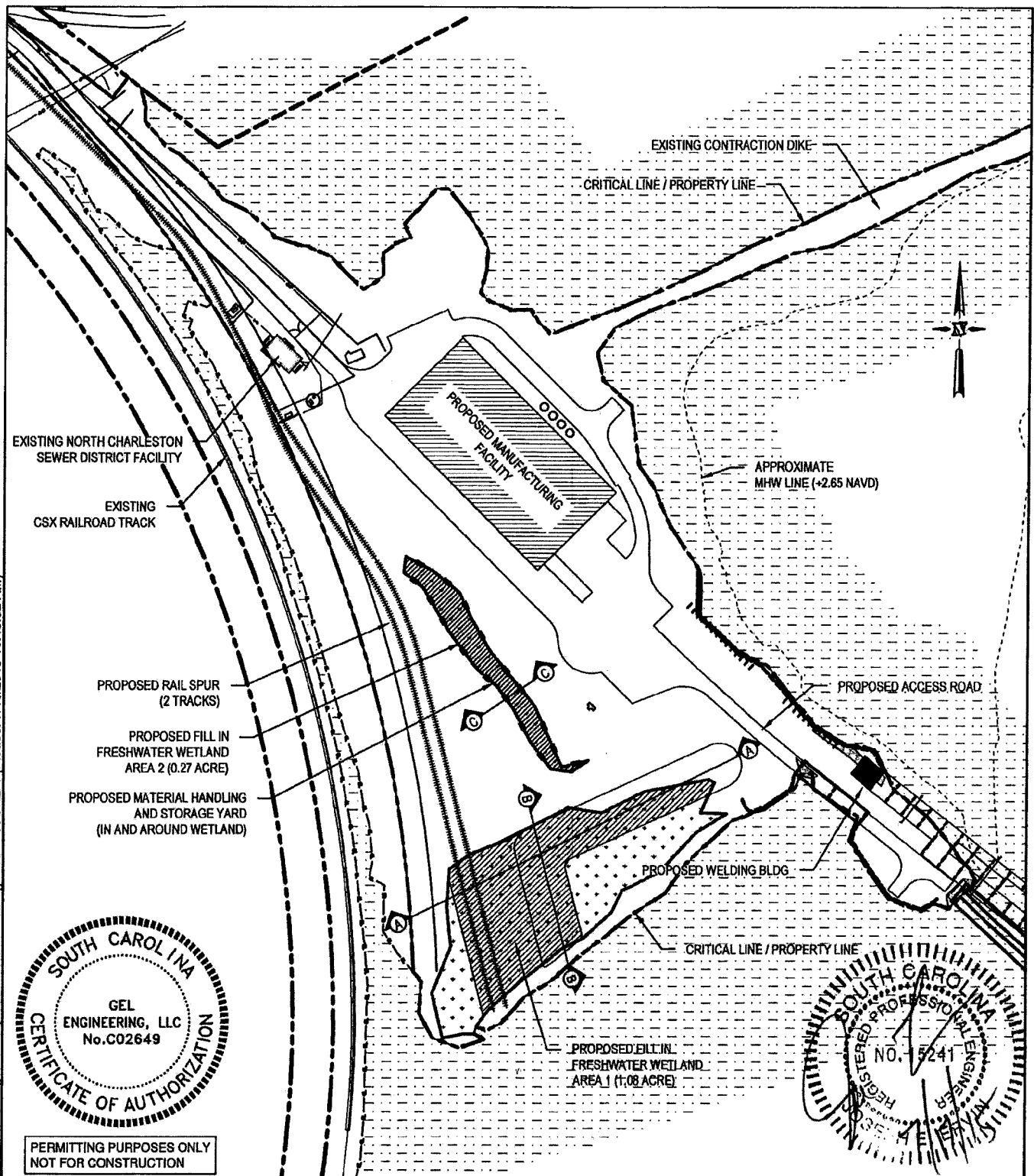
IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 3 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015

c:\a-d\alegru - agru america\inc\agru00115\agru00115-permits-rev071615.dwg : REV FIGURE 4 (Plotted: 7/16/2015 10:49:52 AM)



PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
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SURVEY DATUM: NAVD 88
NAD 83

FIGURE 4
DETAILED UPLAND SITE PLAN

0 200' 400'
SCALE: 1"=200'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

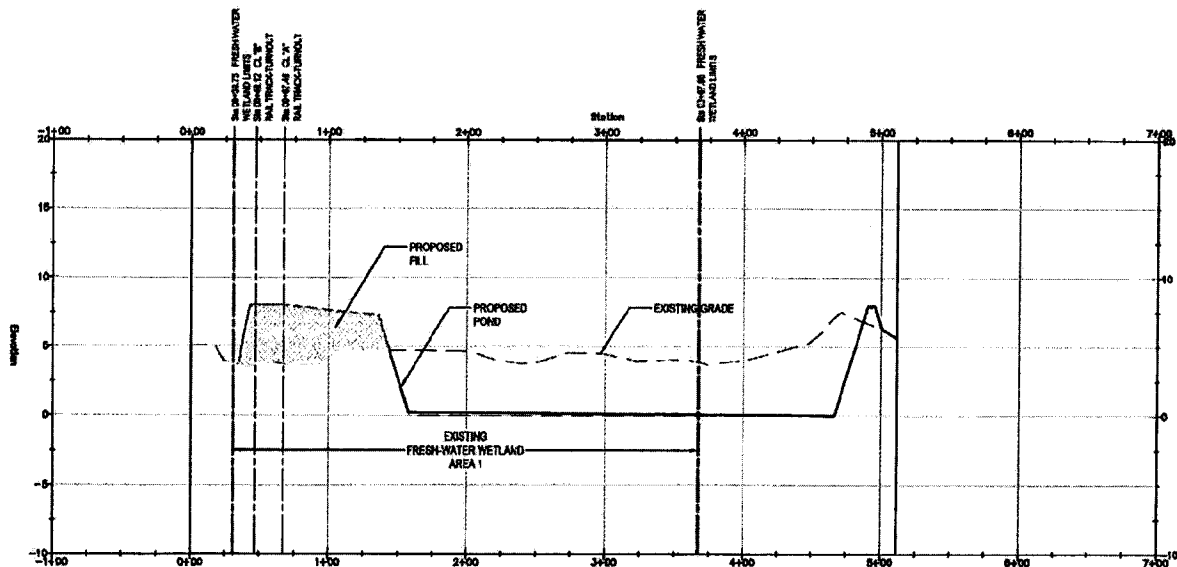
PROPOSED: WETLAND FILL AND WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

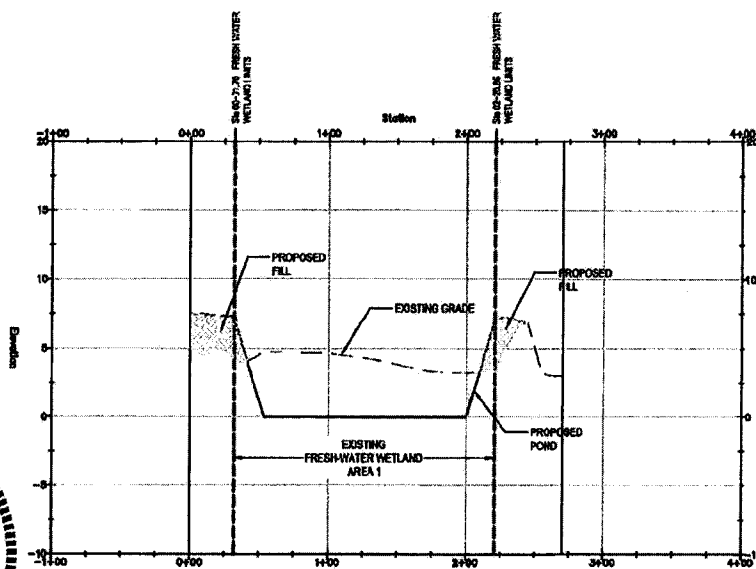
SHEET: 4 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015



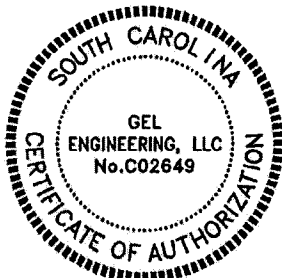
CROSS SECTION A PROFILE

DETENTION POND SECTION - "A-A"
NOT TO SCALE

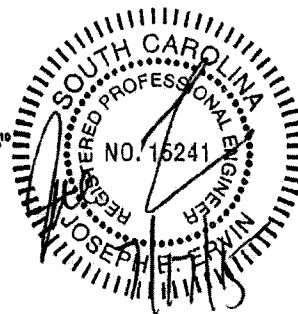


CROSS SECTION B PROFILE

DETENTION POND SECTION - "B-B"
NOT TO SCALE



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PURPOSE: MANUFACTURING AND
EXPORT FACILITY
ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

**FIGURE 5
CROSS SECTIONS**

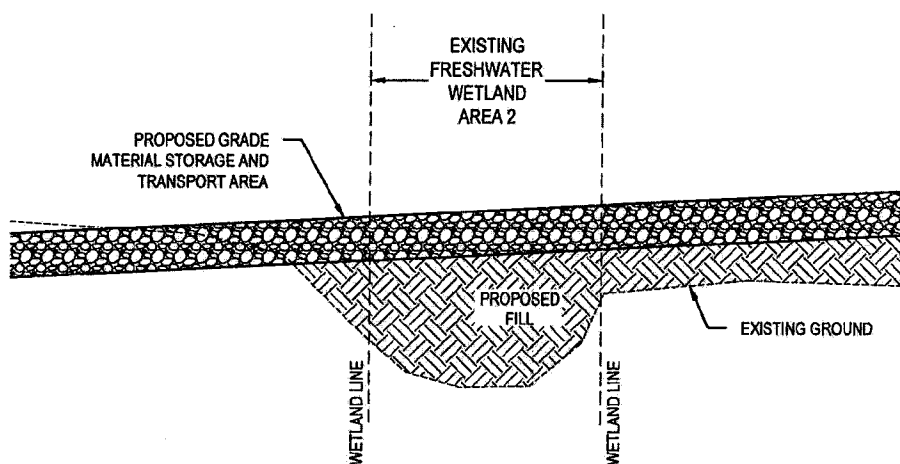
AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET
IN: COOPER RIVER
COUNTY OF: CHARLESTON
SOUTH CAROLINA

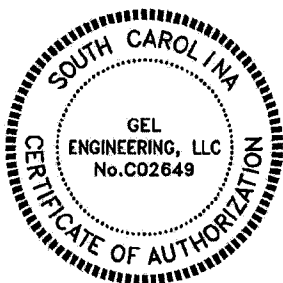
SHEET: 5 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015

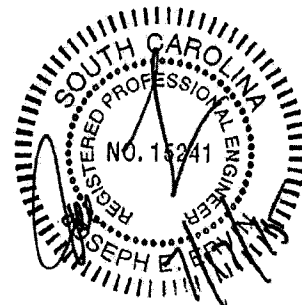
g:\a-d\alegru - agru americas, inc\agru00115\agru00115-permits-rev071615.dwg : FIGURE 6 (Plotted: 7/16/2015 10:57:01 AM)



SECTION C-C
NOT TO SCALE



PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION



PURPOSE: MANUFACTURING AND
EXPORT FACILITY
ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 6
CROSS SECTIONS

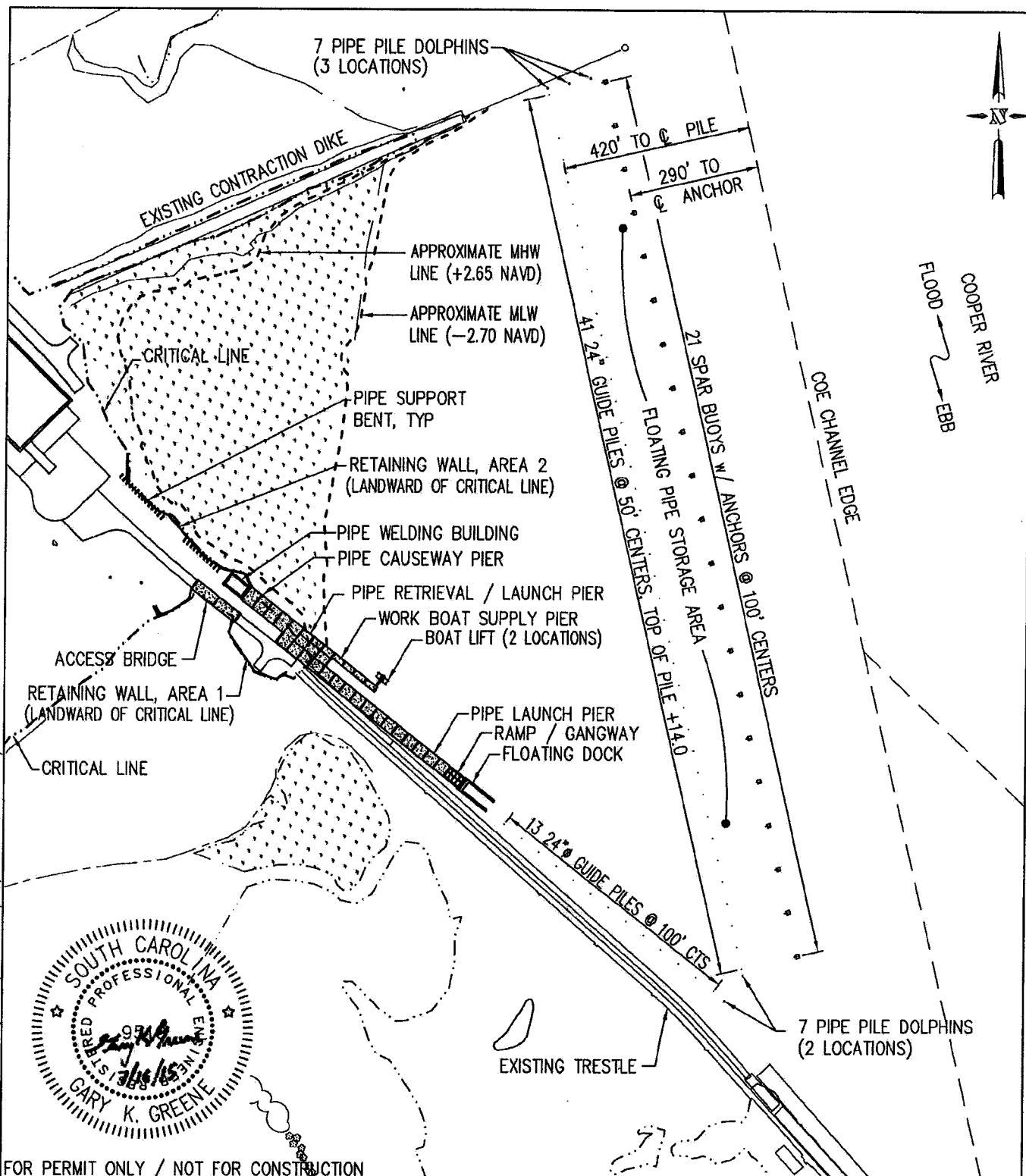
AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET
IN: COOPER RIVER
COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 6 OF 13

DATE: MARCH 13, 2015
REV: JULY 16, 2015

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PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 7
WATERFRONT IMPROVEMENTS
GENERAL PLAN

1"=300'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT:
1401 GREENLEAF STREET

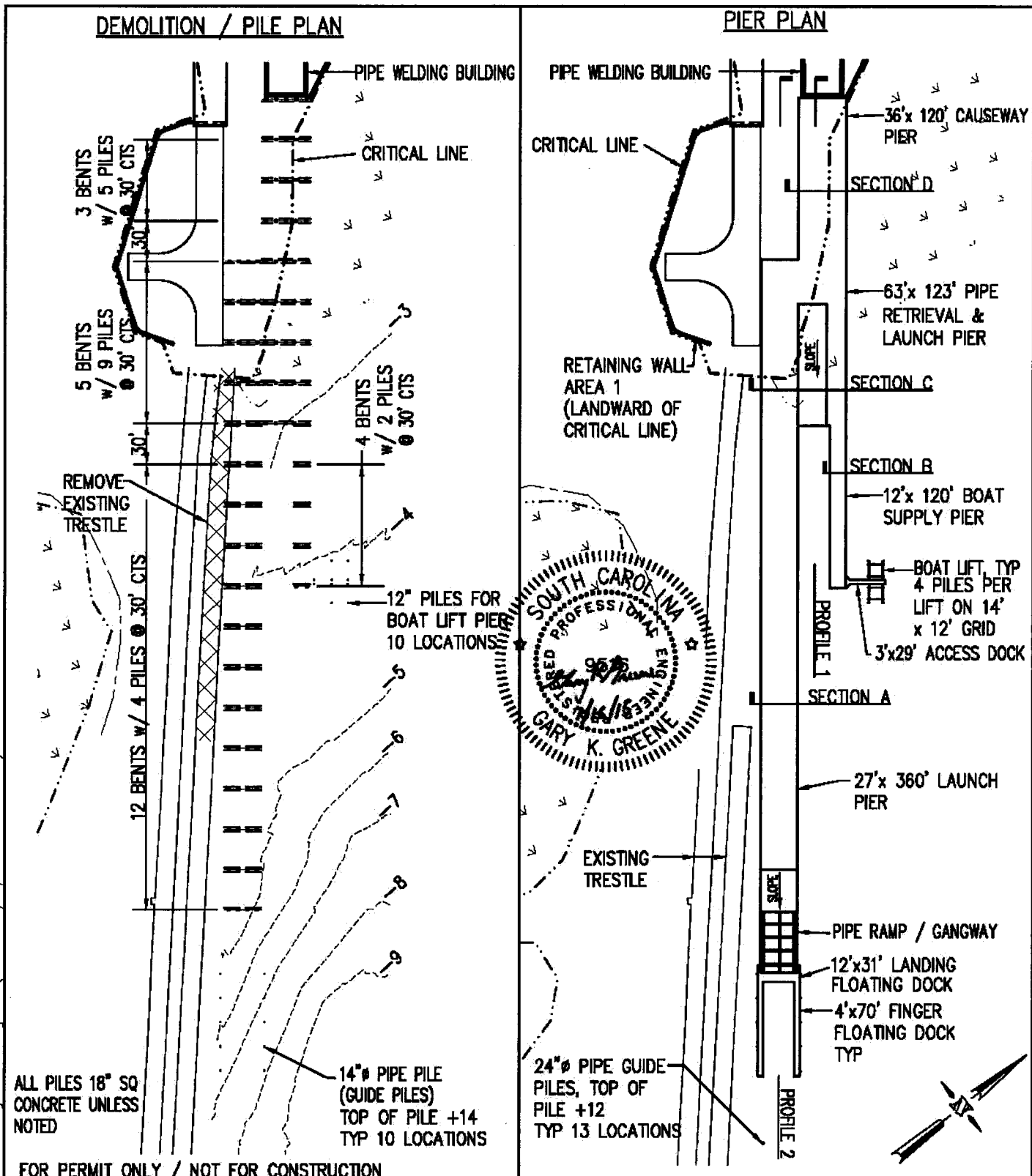
IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 7 OF 13

DATE: JULY 16, 2015

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PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 8

WATERFRONT IMPROVEMENTS
PIPE LAUNCH AND RETRIEVAL PIERS

1"=100'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND WATERFRONT IMPROVEMENTS

AT: 1401 GREENLEAF STREET

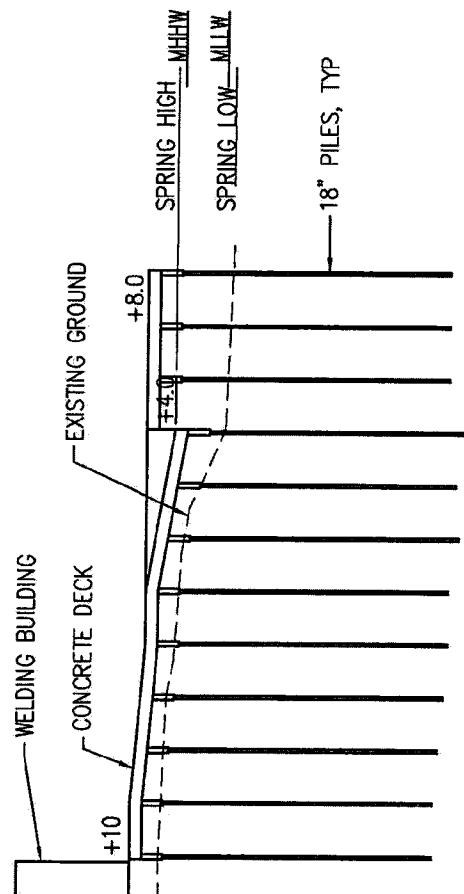
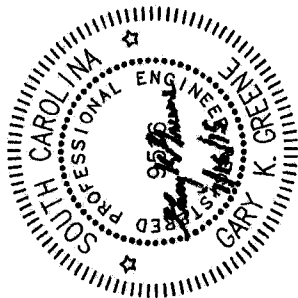
IN: COOPER RIVER

COUNTY OF: CHARLESTON SOUTH CAROLINA

SHEET: 8 OF 13

DATE: JULY 16, 2015

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PROFILE 1

PROPOSED GRADE (GRAVEL SURFACE)

EXISTING GROUND

CONCRETE DECK

PIPE RAMP / GANGWAY

+4.0

SPRING HIGH MHHW

SPRING LOW MLLW

FLOATING DOCK

18\"/>

PROFILE 2

FOR PERMIT ONLY / NOT FOR CONSTRUCTION

PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 9
WATERFRONT IMPROVEMENTS
PIER PROFILES

1"=100' H / 1"=25' V

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

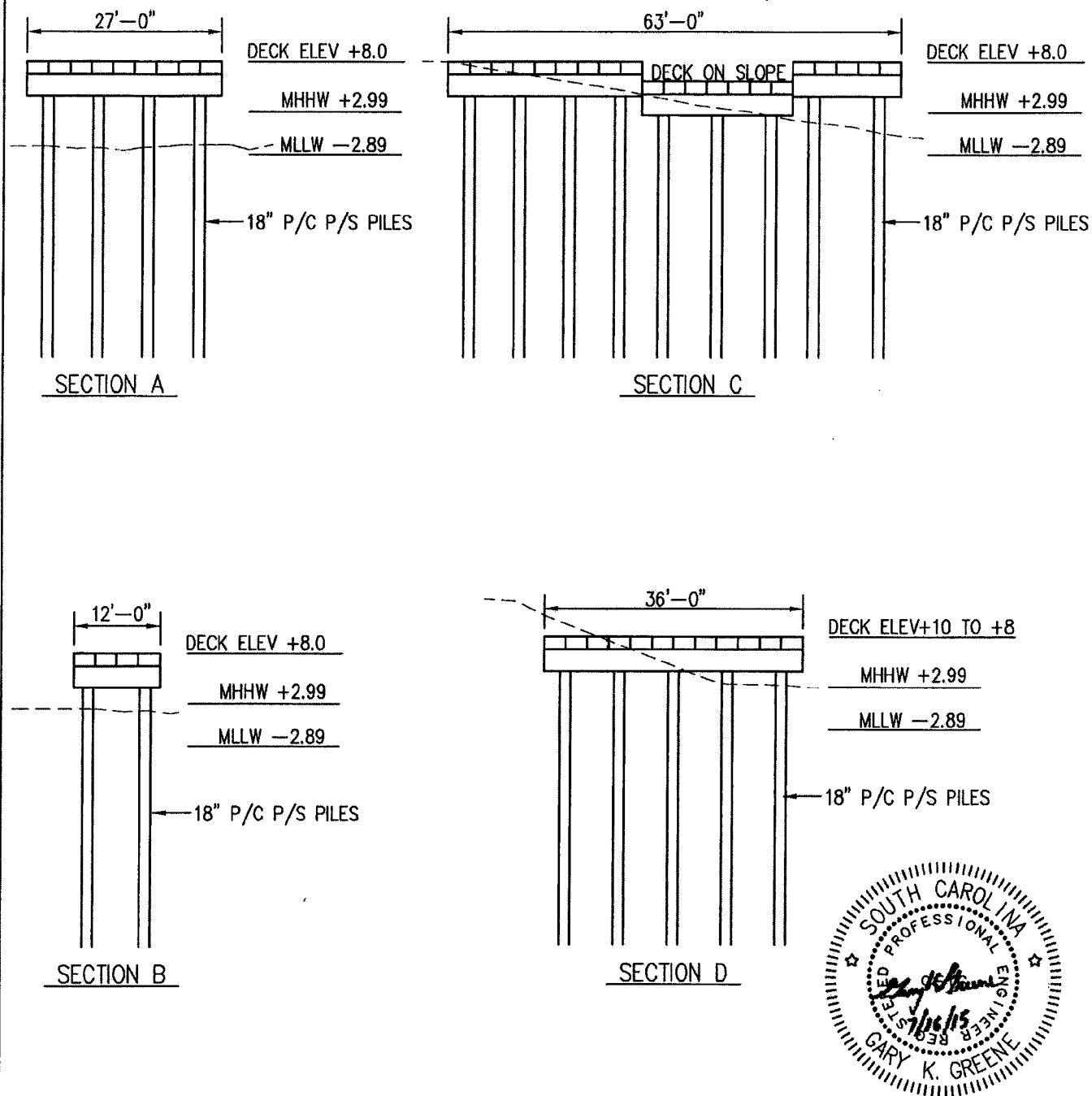
IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 9 OF 13

DATE: JULY 16, 2015

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PURPOSE: MANUFACTURING AND EXPORT
FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 10
WATERFRONT IMPROVEMENTS
PIER SECTIONS

1"=20'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS

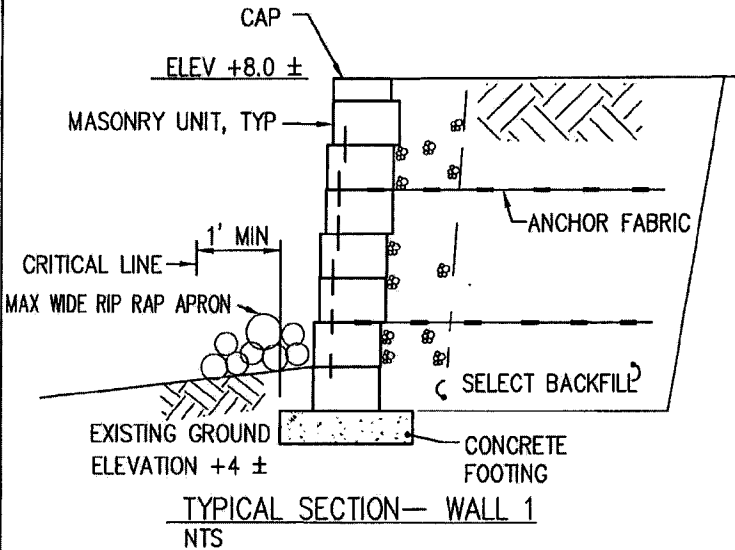
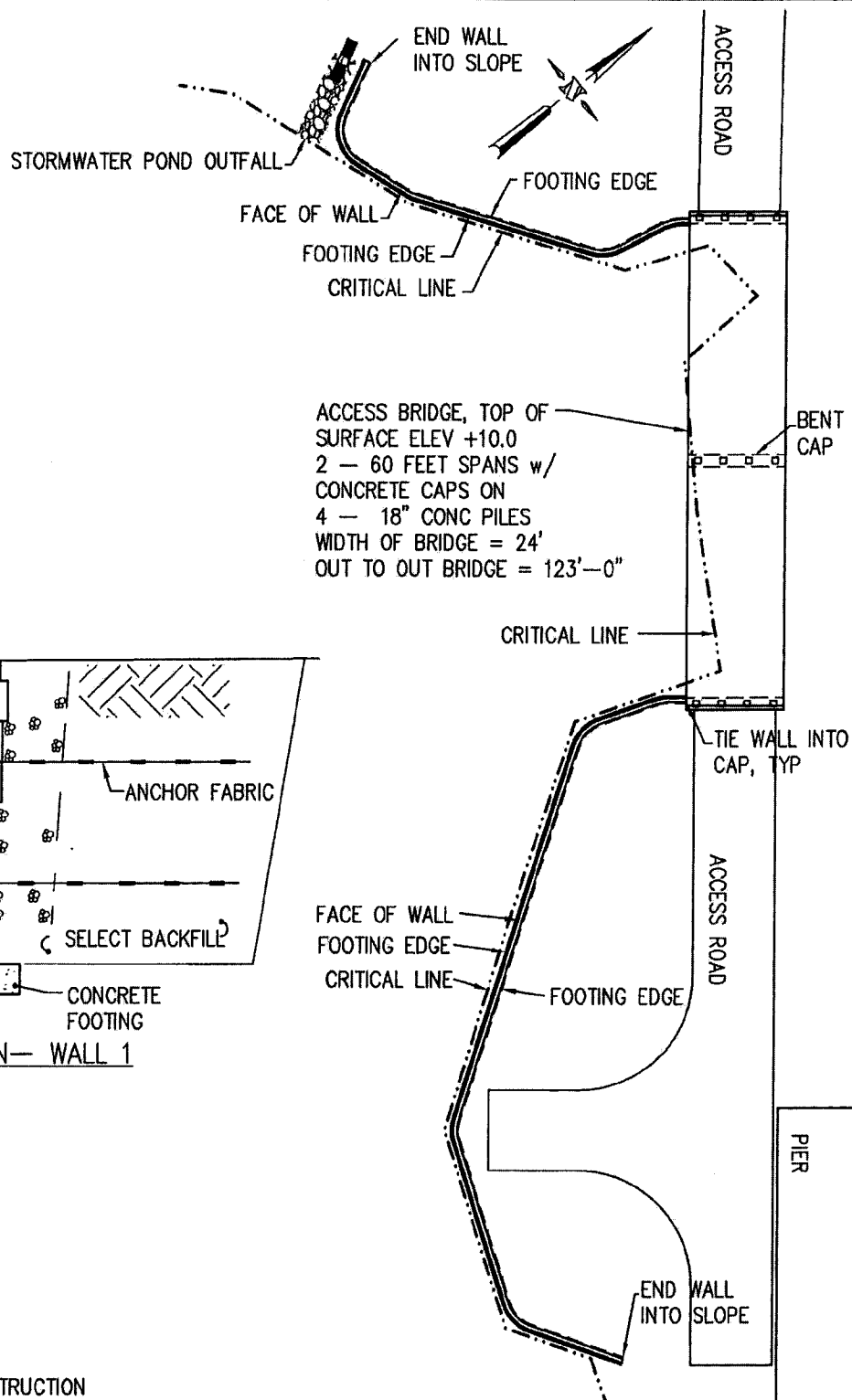
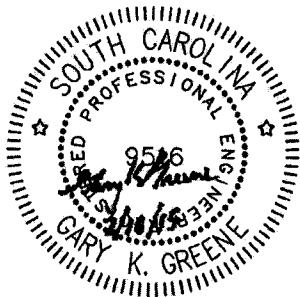
AT: 1401 GREENLEAF STREET

IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 10 OF 13

DATE: JULY 16, 2015



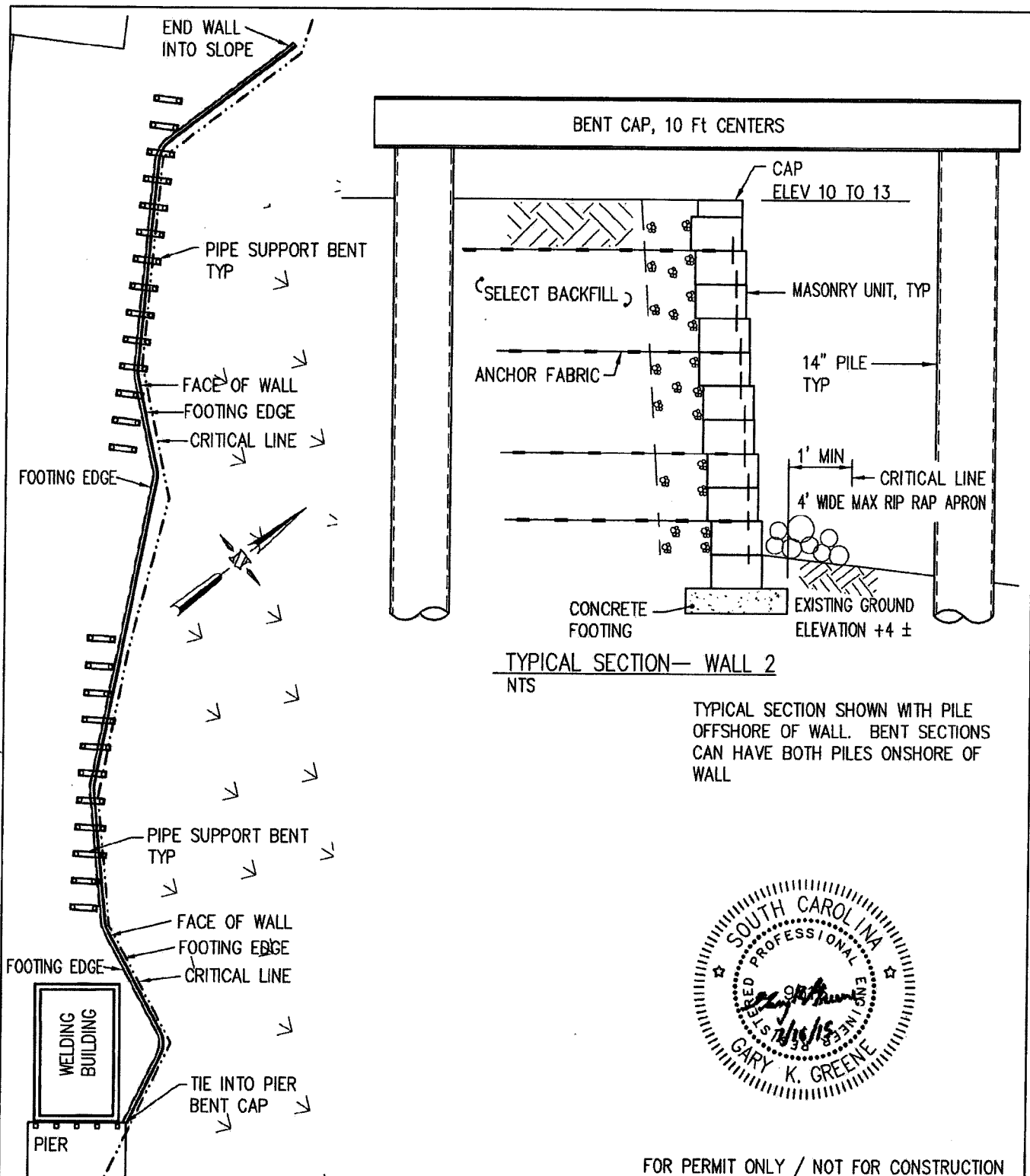
ACCESS BRIDGE, TOP OF
SURFACE ELEV +10.0
2 — 60 FEET SPANS w/
CONCRETE CAPS ON
4 — 18" CONC PILES
WIDTH OF BRIDGE = 24'
OUT TO OUT BRIDGE = 123'-0"

FOR PERMIT ONLY / NOT FOR CONSTRUCTION

<p>PURPOSE: MANUFACTURING AND EXPORT FACILITY</p> <p>ADJACENT PROPERTY OWNERS SEE ATTACHED</p> <p>SURVEY DATUM: NAVD 88 NAD 83</p>	<p>FIGURE 11 WATERFRONT IMPROVEMENTS AREA 1 WALL & ACCESS BRIDGE</p> <p>1"=40'</p> <p>AGRU AMERICA, CHARLESTON LLC 1401 GREENLEAF STREET CHARLESTON, SOUTH CAROLINA</p>	<p>PROPOSED: WETLAND FILL AND WATERFRONT IMPROVEMENTS</p> <p>AT: 1401 GREENLEAF STREET</p> <p>IN: COOPER RIVER</p> <p>COUNTY OF: CHARLESTON SOUTH CAROLINA</p> <p>SHEET: 11 OF 13 DATE: JULY 16, 2015</p>
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PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 12
WATERFRONT IMPROVEMENTS
AREA 2 WALL & PIPE SUPPORT BENT

1"=50'

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND
WATERFRONT IMPROVEMENTS
AT: 1401 GREENLEAF STREET

IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 12 OF 13

DATE: JULY 16, 2015

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PURPOSE: MANUFACTURING AND EXPORT FACILITY

ADJACENT PROPERTY OWNERS
SEE ATTACHED

SURVEY DATUM: NAVD 88
NAD 83

FIGURE 13
WATERFRONT IMPROVEMENTS
FLOATING PIPE STORAGE

1"=100' H / 1"=25' V

AGRU AMERICA, CHARLESTON LLC
1401 GREENLEAF STREET
CHARLESTON, SOUTH CAROLINA

PROPOSED: WETLAND FILL AND WATERFRONT IMPROVEMENTS

AT: 1401 GREENLEAF STREET

IN: COOPER RIVER

COUNTY OF: CHARLESTON
SOUTH CAROLINA

SHEET: 13 OF 13

DATE: JULY 16, 2015

